

FWP Response to New Aquatic Invasive Species

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***Montana Fish,
Wildlife & Parks***

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FWP Role in AIS Response

- Lead for AIS response efforts involving animals and pathogens, in collaboration with state, federal, and local governments and private land owners
- Response efforts will use the Incident Command Structure (ICS)
- FWP is a signatory to the Columbia River Basin Dreissenid Response Plan

Zebra Mussel Response Options

- Chemical treatment
- Manual removal
- Dewatering/desiccation
- Thermal
- Electrical current
- Biological controls

Case Study 1 – Millbrook Quarry, VA

- 2006 (initial discovery was 2002)
- Total eradication attempt
- Small lake, 12 acres, avg depth 93 ft
- Isolated from other water bodies
- Potassium chloride treatment (174,000 gallons; 100 ppm)
- Total eradication was achieved
- Cost: \$419,000 (\$35,000 per acre)

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Application of Potassium Chloride



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Case Study 2 – Lake Offutt, NE

- Located on Offutt Air Force Base
- 115 acres, avg depth of 15 ft
- Missouri River located 3,000 ft to the East, discharge to the river was plugged Spring 2007
- Zebra mussels confirmed April 2006
- Decided in fall 2007 to treat the lake
- Potassium chloride treatment was ruled out based on price and logistics (would need 340 tons)
- Copper Sulfate was chosen (50,000 pounds; 1ppm), toxic to most aquatic species and listed as a molluscicide
- EA completed 2008 and treatments fall 2008 and spring 2009

Lake Offutt Copper sulfate treatment



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The Rest of the Story

- Eradication was reported in 2009
- September 30, 2010 ; 5 live zebra mussels were found on a substrate sampler

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AIS Response Options

- Small isolated lakes or ponds
 - Lots of options e.g. removal, chemical treatments, dewatering, goal is eradication
 - Montana e.g. eradication of illegally introduced fish either using piscicides or mechanical methods
- Reservoirs/large lakes with connection
 - Chemical options are limited, more complex systems, eradication unlikely, goal is control and containment
 - Montana e.g. control of lake trout in Swan Lake
- Rivers
 - Very few options, goal is minimizing impacts
 - Montana e.g. whirling disease “controlled” through management actions and/or habitat changes

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FWP Response Preparedness

- Response Exercises
 - Lake Kookanusa, MT Fall 2011
 - Next exercise (location to be announced), Fall 2012
- ICS training for staff
- Developing response strategies and scenarios
 - eg. types of waters where chemical treatment could be feasible
- Response plan added to the new Montana AIS Management Plan

Response Exercise

- Lake Koocanusa: in both Montana and British Columbia (Kootenai River, Columbia Basin)
- Zebra mussel exercise
- Incident Command System, joint command
- 5th Exercise for the Columbia River Basin Response Plan
- More information and After Action Report –
100th Meridian Website
www.100thmeridian.org

Scenario and Goal

- Scenario: Zebra mussel veligers detected during routine hatchery inspection at Murray Springs State Fish hatchery
- GOAL: To test and further refine the response protocol specific to increasing coordination between US and Canada under the *CRB Response Plan*.
- GOAL: To further develop a containment strategy for watercraft movement in and out of an infested waterbody.

Objectives of Exercise

- Provide an overview of roles and responsibilities under the CRB Plan and the ICS planning process
- Engage the Province of British Columbia
- Increase coordination with USACOE and other state, federal and tribal agencies
- Develop a containment strategy for watercraft entering and leaving an infested waterbody
- Exercise the Joint Information System
- Provide ICS training to participants

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Outcomes of Exercise

- Operations Section developed a workable response for containment
- Increased awareness of ICS structure
- Increased communications with Canada, states and federal agencies
- Showed gaps and short falls
- Montana FWP is committed to annual exercises that will rotate throughout the state

Discussion Questions

- What else can we do to be prepared?
- Suggestions for the Montana response exercise in 2012
- Research needs?

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